Government of Western Australia
Department of Water and Environmental Regulation

Amended Works Approval

Works approval number	W6384/2020/1
Works approval holder	Spinifex Crushing and Screening Services Pty Ltd
ACN	135 324 551
Registered business address	128 Albany Highway, ALBANY 6330
DWER file number	DER2020/000143
Duration	16/11/2020 to 15/11/2025
Date of Issue	16/11/2020
Date of last amendment	13/11/2023
Premises details	Rocky Crossing Asphalt Plant Lot 104 (No.303) Rocky Crossing Road, Willyung Legal description - Lot 104 on Deposited Plan 49239 Certificate of Title Volume 2616 Folio 525

Prescribed premises category description (Schedule 1, ***Environmental Protection Regulations 1987***)	**Assessed production capacity**
Category 35: Asphalt manufacturing	5,000 metric tonnes per annum

This amendment is granted to the works approval holder, subject to the attached conditions, on 13 November 2023, by:

Amine Fisher

Digitally signed by Amine Fisher
Date: 2023.11.13 11:52:08 +08'00'

A/MANAGER, PROCESS INDUSTRIES REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
16/11/2020	W6384/2020/1	Works approval granted.
20/09/2021	W6384/2020/1	CEO-initiated amendment to give effect to the Minister's appeal determination (059/20)
13/11/2023	W6384/2020/1	Works Approval Holder initiated amendment to extend the expiry date by 2 years and to amend the premises boundary.

Interpretation

In this works approval:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;
(b) in accordance with the corresponding design and construction requirements; and
(c) at the corresponding infrastructure location;

as set out in Table 1.

Table 1: Design and construction requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Mobile asphalt plant comprising: A rotary dryer A pug mill A gob hopper Control room	• Must have a maximum design capacity of 40 m^3/hr. • MAP infrastructure must be located on a compacted gravel hardstand and designed to direct all runoff to the sump. • Insulated and clad rotary dryer generated by diesel fuel. • Pug-mill for mixing heated aggregate and liquid bitumen. • Loadout conveyor must be covered. • MAP infrastructure must be constructed such that vapours are directed to the baghouse. • MAP infrastructure (excluding the boiler) must be capable of achieving a noise level of no greater than 102 dB(A) at 1 m. • Boiler located within a metal clad shed with the opening to the east.	As depicted in Schedule 1, Figure 3. Labelled as: III. Aggregate drying and heating V. Filler & bitumen VII. Elevating of asphalt to storage tank Control room As depicted in Schedule 1, Figure 2. Labelled as: Bunded fuel storage area Material bins Front end loader area, Asphalt plant
2.	Noise mitigation bund	Noise mitigation earth bund must be a minimum of 4m high and 130m long and located on the east side of the MAP.	As depicted in Schedule 1, Figure 2. Labelled as: 4m high bund
3.	5 x Raw material storage bays	• Storage bays must be constructed with three walls. • Sprinkler system installed on storage bays which provides adequate coverage of the bays for dust suppression of contained materials.	As depicted in Schedule 1, Figure 2. Labelled as: Material bins
4.	Bag house filter stack	• Minimum stack height 12m above ground level • Stack is to be fitted with a sampling port that meets requirements of AS 4323.1. • Piping system and / or stack is fitted with a silencer for noise reduction • Stack must be capable of be capable of achieving a noise level of no greater than 98 dB(A) at 1 m.	As depicted in Schedule 1, Figure 3. Labelled as: Chimney

	Infrastructure	Design and construction / installation requirements	Infrastructure location
5.	Baghouse	• The baghouse will be installed with a filter which: (i) has a design capacity of 27,000 m^3/hour; (ii) has a design capacity for particulates of less than 20mg/m^3; and (iii) is fitted with a minimum of 224 filter bags with a filter area of at least 240m^2. • The baghouse will be fitted with an automatic reverse-cycle cleaning system. • The baghouse will be fitted with a broken bag detection system. • The baghouse will be fitted with an air temperature control system with built in alarms and cut off controls.	As depicted in Schedule 1, Figure 3. Labelled as: Cyclone dust filter
6.	40,000L heated bitumen tanker	• Enclosed storage tank to be located on a gravel hardstand within a bunded area. • A condenser to be fitted on the sealed lid to direct condensate back into the tank.	As depicted in Schedule 1, Figure 3. Labelled as: Asphalt heating tank
7.	MAP stormwater treatment system.	• Stormwater treatment system will comprise of a minimum of 20m^3 collection sump filled with cages of spongoilte rocks and discharge to a reed bed.	As depicted in Schedule 1, Figure 2. Labelled as: Sump and reed bed

Compliance reporting

2. The works approval holder must within 60 calendar days of an item of infrastructure or equipment required by condition(s) 1 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:

(a) certification by a qualified professional engineer that the infrastructure or equipment or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1, and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 once the Environmental Compliance Report as required by condition 2 of this works approval has been submitted by the works approval holder for that item of infrastructure.

5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 6 (as applicable):

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 4 for that item of infrastructure; or
(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*.

Time limited operations requirements

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1	Asphalt plant	• Plant production capacity of not more than 300 metric tonnes per day. • Low sulphur bitumen to be only used in the plant. • Pug mill emissions must be directed to the baghouse for treatment and discharge via the stack. • Asphalt will be transferred through a covered load-out conveyor. • All vehicles leaving asphalt plant have trays tarped. • Hardstand areas are maintained to capture spills, solids or liquids including contaminated stormwater and directed to the sump prior to discharge through reed bed and into the retention basin. • Gravel hardstand watered with a water cart from November –April (inclusive) to suppress dust.	As depicted in Schedule 1, Figure 2. Labelled as: Asphalt Plant Bunded fuel storage area Material bins Front end loader area Sump and reed bed
2	5x Raw material storage bays	• Sand and aggregate must be stored within the bays. • Materials stored in the bays shall not be stored higher than the bay walls. • Sprinkler system is maintained and operated on storage bins to prevent windblown dust. • All sand and aggregate to be damp upon delivery. • All sand and aggregate deliveries to be tarped.	As depicted in Schedule 1, Figure 2. Labelled as: Material bins
3	Bag house and stack	• Emissions from baghouse discharge to the atmosphere via a 12m stack. • If blue smoke is detected the temperature will be immediately reduced. The baghouse shall be operated with: i. an automatic reverse -cycle cleaning system; ii. a broken bag detection system; iii. operator shuts down plant when broken bags are detected, and iv. an air temperature monitoring and control system which alarms at temperatures above 180^{o}C or below 80^{o}C and ceases fuel supply at 230^{o}C.	As depicted in Schedule 1, Figure 3. Labelled as: Chimney Cyclone dust filter
4	MAP Stormwater management	• Contaminated stormwater from the MAP is directed to the sump filled with cages of spongolite rocks and is discharged through a reed bed into a	As depicted in Schedule 1, Figure 2. Labelled

	Site infrastructure and equipment	Operational requirement	Infrastructure location
	consisting: • Sump containing spongolite rock cages	retention basin. • Spongolite rock cages are replaced annually. • All clean stormwater is diverted away from the MAP	as: Sump and reed bed

Monitoring during time limited operations

7. The works approval holder must monitor emissions during time limited operations in accordance with Table 3.

Table 3: Emissions and discharge monitoring during time limited operations

Discharge point	Parameter	Frequency	Unit	Method Sampling
A1 As depicted in Schedule 1 Figure 2	Particulate matter	Once, within four weeks of commencing time limited operations	mg/m^3 g/s	USEPA Method 5 or 17
	Oxides of nitrogen			USEPA Method 7E
	Carbon monoxide			USEPA Method 10
	Total volatile organic compounds			USEPA Method 18
	Stack flow rate		m^3/min	USEPA Method 2
	Stack velocity		m/sec	

8. The works approval holder must record the results of all monitoring activity required by condition 7.

9. The works approval holder must ensure that sampling required under condition 7 of this works approval is undertaken at a sampling location in compliance with the AS 4323.1.

10. The works approval holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 7 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of sampling and analysis relevant to the corresponding relevant parameter.

Compliance reporting

11. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the earliest.

12. The works approval holder must ensure the report required by condition 12 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of asphalt processed;
(b) a summary of monitoring results obtained during time limited operations under condition 7;
(c) a summary of the environmental performance of all infrastructure as constructed or installed (as applicable), which includes records detailing the amount of asphalt produced;
(d) a review of performance and compliance against the conditions of the works approval and the Time Limited Operations Report; and

(e) where conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

13. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);
(b) the time and date of the complaint;
(c) the complete details of the complaint and any other concerns or other issues raised; and
(d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

14. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 1;
(b) any maintenance of infrastructure that is performed in the course of complying with condition 6;
(c) monitoring programmes undertaken in accordance with condition 7; and
(d) complaints received under condition 13.

15. The books specified under condition 14 must:

(a) be legible;
(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
(c) be retained by the works approval holder for the duration of the works approval; and
(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 4 have the meanings defined.

Table 4: Definitions

Term	Definition
AS4323	means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	Environmental Protection Regulations 1987 (WA).
Low sulphur bitumen	means standard low Sulphur Class 320 bitumen.
MAP	means mobile asphalt plant
monthly period	means a one-month period commencing from 1 of a month until [1 (X-1)] of the immediately following month. *e.g. "means a one-month period commencing from the seventh day of a month until the sixth day of the immediately following month."*
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
qualified professional engineer	means a person who: (a) holds a Certificate IV or tertiary academic qualification specialising in engineering; (b) has a minimum of 2 years of experience working in engineering, and or is otherwise approved by the CEO to act in this capacity.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
USEPA Method 2	means USEPA Method 2 Determination of Stack Gas Velocity and Volumetric FlowRate(Type S Pitot Tube)
USEPA Method 5	means USEPA Method 5 Determination of Particulate Matter Emissions from Stationary Sources
USEPA Method 7E	means USEPA Method 7E Determination of Nitrogen Oxides Emissions from Stationary Sources

Term	Definition
USEPA Method 10	means USEPA Method 10 Determination of Carbon Monoxide from Stationary Sources
USEPA Method 17	means USEPA Method 17 Determination of Particulate from Stationary Sources
USEPA Method 18	means USEPA Method 18 Measurement of gaseous organic compounds by gas chromatography
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

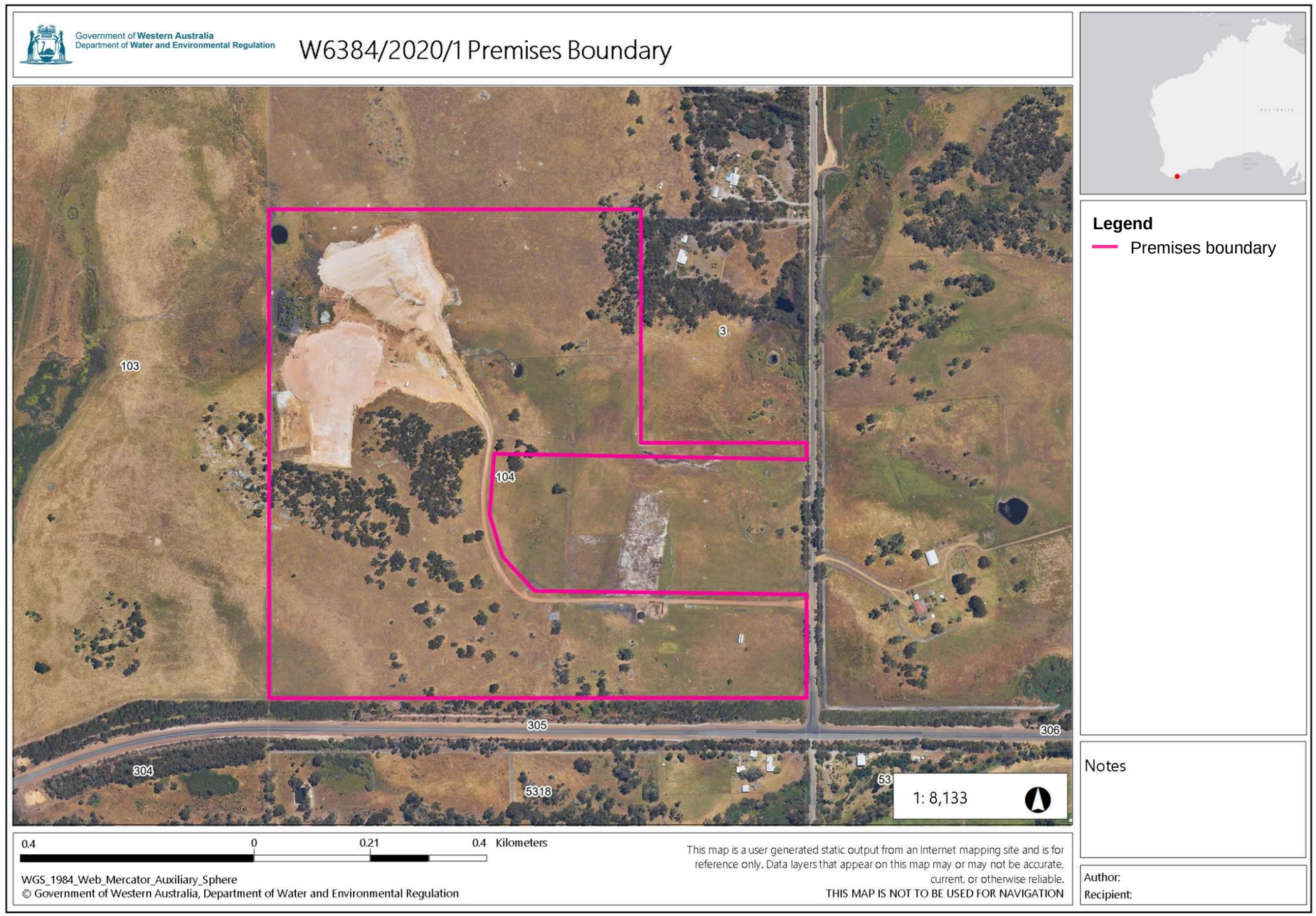

Figure 1: Map of the boundary of the prescribed premises

Premises Layout

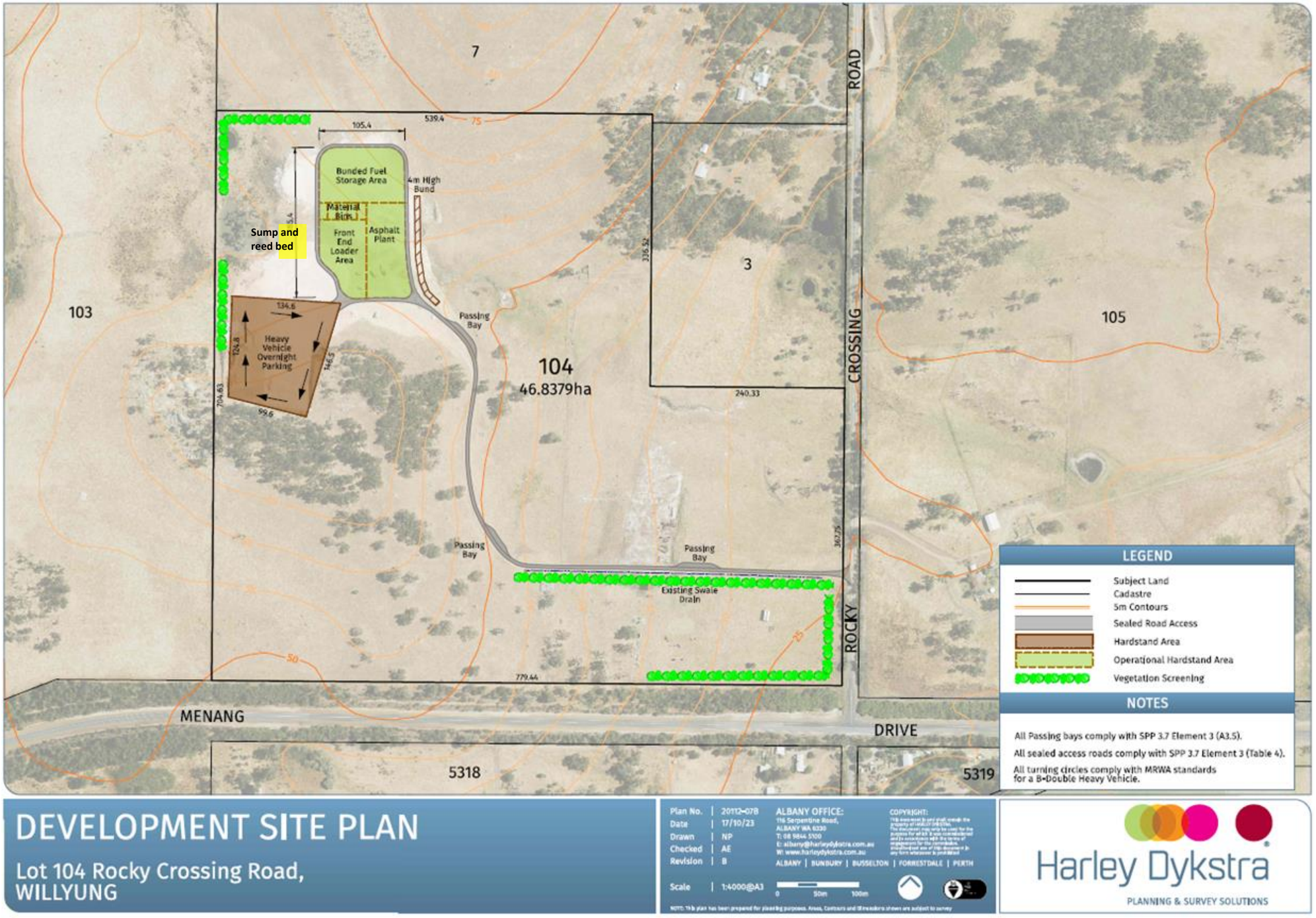

Figure 2: Map of the premises layout

Mobile asphalt plant site map

The alignment of the MAP infrastructure of the prescribed premises is shown in the map below (Figure 3).

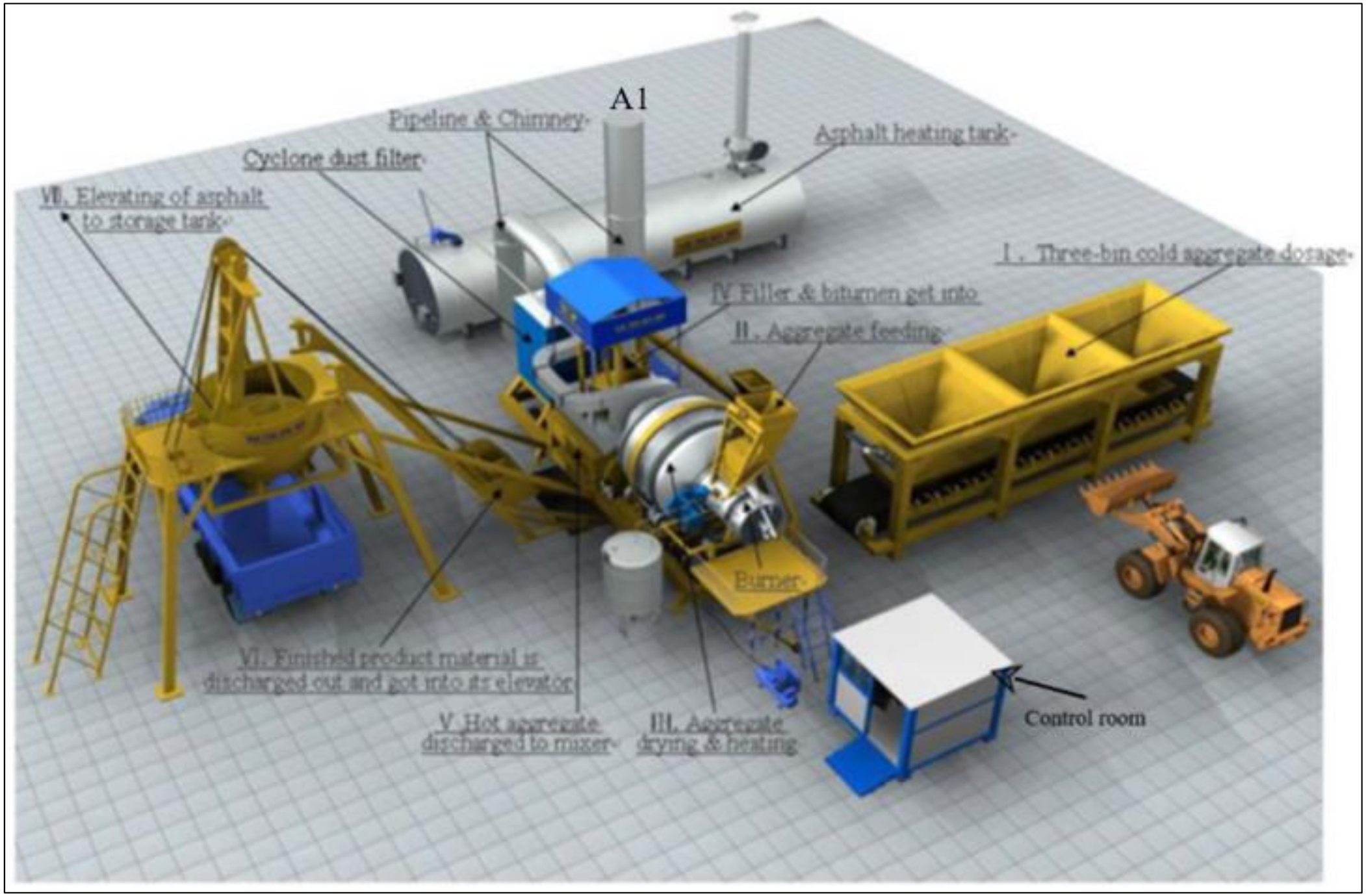

Figure 3: Diagrammatic of the mobile asphalt plant